

# PIKES PEAK RADIO AMATEUR ASSOCIATION (PPRAA)

## Activities/Meetings

- HAM breakfast will be at:  
Omelets Etc  
1616 South 8th Street,  
6 August 2016  
Join us anytime between  
8:00-9:30 AM  
All are warmly invited
- PPRAA Board Meeting  
Monday, 11 July 2016
- PPRAA Club Meeting,  
Wednesday, 13 July 2016  
IHOP  
5749 Stetson Hills Blvd
- 10 Meter/2 Meter net  
Every Thursday 7:00 pm  
28.390 MHz—USB  
144.200 MHz-USB
- Megafest July 9th  
Lewis Palmer HS  
Monument, CO

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# Ø-BEAT



Volume 66 Issue 07

July 2016

## Megafest 9 July 2016

PPRAA will be holding the annual Megafest this weekend.

Date: Saturday July 9th, 2016  
Time: 6:00 AM—Vender setup  
8:00 AM—Doors open to the public  
1:00 PM—Megafest over, cleanup starts  
Admission: \$5.00 includes 1 raffle ticket  
Table Rental: \$17.00 (plus admission)

Hourly door prizes

A special thank you to our sponsors:

[RT Systems](#)—donated programming kits for all HF and VHF/UHF radios.  
[Cheyenne Mountain Repeater Group](#)—donated the ICOM ID-5100A

Raffle tickets (1 ticket for \$1, 6 tickets for \$5, 15 tickets for \$10, 40 tickets for \$20)

### Raffle Prizes:

Grand Prize	Yaesu FT-991 w/Programming kit
Second Prize	ICOM ID-5100A VHF/UHF DSTAR w/Programming kit
Prize	ICOM IC2730A VHF/UHF w/Programming kit
Prize	RigExpert AA-54 antenna analyzer
Prize	Yaesu FT-60R VHF/UHF HT w/Programming kit
Prize	MFJ-993BRT remote antenna tuner
Prize	Alpha S9v43 Vertical Antenna
Prize	Diamond X50A VHF/UHF Vertical Antenna

For more about the PPRAA Megafest see page 9 or visit <http://ppraa.org/megafest>

## Megafest Grand Prize—Yaesu FT991



### FT-991 ALL-BAND, MULTIMODE PORTABLE TRANSCEIVER

The FT-991 now includes a high-resolution full color 3.5" TFT Touch panel for superior operability and visibility, incorporating a High Speed Spectrum scope with ASC (Automatic Spectrum-scope control) built right in.



## PPRAA Officers and Board of Directors

PPRAA Board of Directors consists of four elected officers, seven board members, as well as the past president (time limit dependent). The Ø-Beat editor is a board appointed position and is also a member of the board.

Officers include:

- ⇒ President
- ⇒ Vice-President
- ⇒ Secretary
- ⇒ Treasurer

To send board member's email, browse to the officers section of our website: <http://ppraa.org/about-ppraa/officers>

President	Raleigh Holcomb	N4HYF
Vice-President	Jim Bishop	KDØKQL
Secretary	John Wishart	NGØI
Treasurer	Rich Milligan	ADØNP
Board Member	John Bloodgood	KDØSFY
Board Member	Glenn Brodt	N3ULW
Board Member	Frank Roger	KB3PDT
Board Member	Pam Scott	WØPRS
Board Member	Jim Bishop	KDØKQL
Board Member	Virgil Yost	NØXRS
Board Member	Mike Anderson	WV7T
Ø-Beat Editor	Dan Scott	WØRO
Webmaster	Doug Nielsen	N7LEM

## Online Resources

### PPRAA Website

<http://ppraa.org>

The PPRAA website is the cornerstone for club related information, events, and technical information.

In addition you can register, pay dues, and submit donations. Donations to the PPRAA college scholarship fund are managed by FAR Scholarship Committee

### Facebook / Google+

Follow activities as they unfold, or get reminders of upcoming events.

Links to both Facebook and Google+ social media sites can be found on the [PPRAA.org](http://PPRAA.org).

Or from each social media site search on: Pikes Peak Radio Amateur Association.

### PPRAA Forums

The PPRAA forums are intended to allow users to exchange ideas, ask and answer amateur radio related questions, and plan/discuss upcoming events.

This is a fantastic, but underutilized, tool. Check it out and register at:

[PPRAA.Forumotion.net](http://PPRAA.Forumotion.net)

## Monthly Activities

### Membership Meeting

Held the 2nd Wednesday of the month starting at 7:00.

IHOP  
5749 Stetson Hills Blvd  
(Just west of Powers Blvd)

NOTE: Many show up at 6 pm for kibitzing and grub.

### Board Meeting

IHOP  
5749 Stetson Hills Blvd  
Colorado Springs, CO 80906

6:30pm—8:00pm  
On the Monday preceding the membership meeting.

Board Meetings are open to all members.

### Ham Breakfast

Location changes monthly: Check [ppraa.org](http://ppraa.org) or table of contents, page I for the breakfast meeting location.

### 10 Meter/2 Meter Net

Every Thursday at 7pm  
Starts on 28.390 USB then transitions to 2 Meter SSB at 144.200 USB.



## ARRL 600 Meter Experiment reports 202,400 Hours of Operation Zero Interference Complaints

The [ARRL 600 Meter Experiment](#) under the WD2XSH Part 5 Experimental license reports that no interference complaints have been received from other services operating in the 465-515 kHz band over the course of more than 202,400 hours of operation, nor was interference from other operations an issue for any of the experiment's participants. That statistic was contained in the Experiment's March 1 to May 31, 2016, report, prepared by Experiment Coordinator Fritz Raab, W1FR, with participants Rudy Severns, N6LF, and John Langridge KB5NJD, and released on July 3. Utilities' expressed fears of interference to their unlicensed PLC systems prompted the FCC to consider regulatory provisions that include a possible notification requirement by some radio amateurs to utilities with systems in the pending 630 meter (472-479 kHz) and 2200 meter (135.7-137.8 kHz) bands, prior to operating. Utilities use unlicensed PLC systems to control parts of the electrical power grid.

The latest WD2XSH update reported another 16 contacts on the pending 630 meter band, for a total of 578. The Amateur Radio community continues to wait for the FCC to release a Report and Order spelling out service rules and operational requirements for the two bands — both of which have become available in more than a dozen other countries, including Canada. The ARRL [petitioned](#) the FCC in 2012 to carve out the same band for US hams.

"When the FCC grants amateur access to the band from 472 to 479 kHz, I will restrict operation under the experimental license to 461 to 472 kHz," Raab said in the report. "This will clear the amateur frequencies while allowing the experimenters to run unattended propagation beacons without using the

limited bandwidth that will be available to amateurs." Earlier this year he asked that the ARRL renew the WD2XSH experimental license while awaiting FCC action on 630 meters and 2200 meters.

In an [ex parte statement](#) filed on March 10 with the FCC, the ARRL asked the Commission not to adopt "an overbroad" requirement for notification of utilities in advance of intended Amateur Radio operation on the pending 2200 and 630 meter bands.

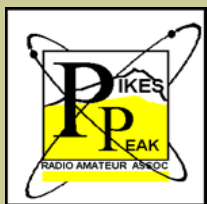
According to the report, activity on 630 meters continued through the spring, despite increasing noise levels and deteriorating propagation. "This spring was characterized by bad weather that was more persistent than normal," the report recounted. "This kept a number of operators off the air a good deal of the time."

Band conditions overall were described as "variable." The path to Australia from North America was reported to have been good and "relatively predictable," while the paths to Europe and Japan have been less active.

### Credits:

This article was copied 100% from ARRL's web site with their permission. [ARRL.org](#) provides a wealth of information to ARRL members and non-members alike. Please support the ARRL by joining.

The url to the article is:  
<http://www.arrl.org/news/arrl-600-meter-experiment-reports-202-400-hours-of-operation-zero-interference-complaints>



## PPRAA Board Meeting Minutes—7 June 2016

OH-OH

Computer glitch and meeting minutes are lost forever!

### Next membership meeting presentation

At the next general membership meeting, Doug, N7LEM will be presenting and demonstrating the dongle Software Defined Radio (SDR).

Doug has demonstrated some of the SDR features to me some months ago. I found the SDR to be very interesting.

Please join us Wednesday, 13 July at IHOP located at 5749 Stetson Hills Boulevard, Colorado Springs.

## PPRAA General Meeting Minutes—9 June 2016

The meeting was called to order at 7:00 PM by President Raleigh Holcomb at the IHOP Restaurant on Stetson Hills near Powers Blvd. Approximately 31 members and guests were present.

Silent Keys: Wife of Charlie Coyner, former club member.

Treasurer's Report Rich Milligan reported that we had \$9,885 in our bank account as of 31 May 2016.

Minutes of the previous meeting were approved as posted in the Zero Beat newsletter.

### Old Business

Club Station - will be having a work party to dig a hole for a new tower installation. Trailer roof needs to have sealant applied at an estimated cost of \$32. Three 10' tower sections are available for purchase.

### Club Picnic

Pam reported on costs and availability of several park facilities. Moved and seconded on Sunday, Aug 28, at Bear Creek Park (subject to availability). Passed.

### Field Day

Mike Anderson noted that we will have CW, SSB, digital, VHF stations, plus a GOTA station. Weekend of June 25, Sat/Sun. We now have AC in the trailer plus a tarp for shade by the trailer. Mike will be having a mini-class on antenna analyzes and soldering connectors on coax. These will be in the fire station bay. Lunch is furnished on Sat. Pot luck on Sat eve. Breakfast is furnished on Sunday AM.

### ARES Report

John Bloodgood reported on several recent ARES activities. Volunteers are still needed for upcoming events. Register for events on the PPARES websites, [ppares.net](http://ppares.net) or [ppares.org](http://ppares.org).

### Megafest 2016

Jim Rader will need volunteers on Friday, July 8, at 4PM to set up Megafest tables. Volunteers are also needed for assisting vendors in bringing in their stuff, starting at 6AM on Saturday, July 9.

### King Soopers Gift Cards

These are available for \$5 from Jim Rader. Each card is pre-loaded with \$5 and may be reloaded for purchases at King Soopers. Club gets \$250 for every \$5000 spent at KS.

### Program

ARRL Rocky Mountain Section Manager, Jack Ciaccia WM0G - spoke about the future of amateur radio (What Will the Future Hold?).

### Upcoming Events

Next Board Meeting: 6:30PM, Monday, July 11, 2016, at IHOP Restaurant at Powers & Stetson Hills.

Next PPRAA regular meeting: 7PM, Wednesday, July 13, 2016, also at the IHOP Restaurant.

Megafest 2016: July 9, 2016, 8AM, Lewis Palmer High School, Monument, CO.

The meeting was adjourned at 9:00 PM.

Respectfully submitted,  
John Wishart NGØ1  
PPRAA Secretary  
25 June 2016





21 FOOT  
TELESCOPING  
ALUMINUM MAST  
LIGHT WEIGHT  
AND SMOOTH  
OPERATION

## A HIGH QUALITY 2.5 WATT AUDIO AMPLIFIER

It is hot outside. Would you like a simple, but useful indoor project? How about an audio amplifier to enhance audio on a hand held radio, electronic tablet, old computer, MP3 player and any other device that is lacking good audio quality.

You can dig out 3 to 4 transistors and bunch of resistors, capacitors and transformers. Or, you acquire one integrated circuit. A common one is the LM-380.

There are 2 versions, an 8 pin and a 14 pin. I am more inclined to use the 14 pin because it is rated at 2.5 watts (heat sinked) as compared to 1 watt for the 8 pin. Plenty of audio power.

Power requirements can be from 10 to 22 volts. Maximum current is 1.3 amp max.

Bandwidth is over 100 khz.

Pins 3, 4, 5, and 10, 11, 12 can be grounded to a copper foil for heat sinking.

Pin 2 is a non-inverting input. In other words it is in phase with the output signal.\*

Pin 6 is an inverting input.\*

\*Input impedance is 150K ohms.

Pin 7 is ground.

Pin 8 is audio out. 8 ohms is best.

Pin 14 is the  $V_s$  or power source.

Below is one version of an

audio schematic.

Of course you are all pro's at making a simple well regulated power supply using the 78 series regulators. A medium sized wall wart will do the job.

When it is too hot outside to fix your antenna, build yourself a LM-380 audio amp.

73,

Ralph WD0EJA

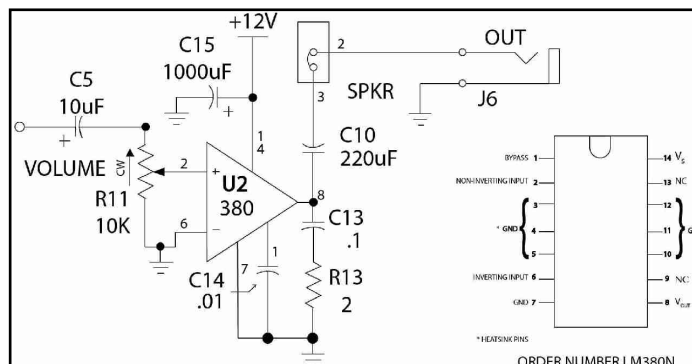
BILAL COMPANY

137 MANCHESTER DR.

FLORISSANT, CO. 80816  
U.S.A

PH/FX: 719/687-0650

[wd0eja@isotronantennas.com](mailto:wd0eja@isotronantennas.com)





## ARES-Emergency Coordinator & Public Information Officer Region 2 District 2

What a great weekend! I was pretty tired come Sunday evening. But before I get into that:

IMPORTANT!!!! There is an ARRL email scam going around again. For more information, please see <http://www.arrl.org/news/warning-notice-to-arrl-email-users-are-bogus>.

Friday evening I spent several hours doing PR duties at Fan Fest for the Pikes Peak International Hill Climb talking to people about amateur radio and ARES. Talked to some people who had no idea about some of the things we do and to a couple hams who just aren't very active. Thanks to anyone else who went down there in their ARES shirts.

Saturday kicked off Field Day and I did an ARES presentation to the Tri-Lakes group at their Tech Field Day in Black Forest before heading out to the PPRAA club site. I missed the Mereo/Village Seven site due to time constraints.

Sunday was the Hill Climb, which meant getting in queue around midnight at the toll gate, heading up the mountain at 2 AM and finding our spots in the dark. By my count we had 27 operators deployed. The race went pretty well, but we will see what the after action comments show us. I think I finally made it home a little after 7 PM, just in time to clean up, grab a bite, and get on the Sunday night Colorado ARES net, where I gave a brief of the race and other events. The Colorado Section Emergency Coordinator, Robert Wareham N0ESQ, was very interested about the race and gave kudos to us for the event.

Our next event should be the Summer Round-up Trail Run on 10 July, see: <http://216.161.57.107/ARESPSE/Default.aspx> for more info. If you see we have met our needed numbers for an event, you can still volunteer. That way we can double up and gives us a chance to get some of the less experienced operators paired up with a more experienced

operator.

More information about the Colorado AuxComm Act has been slow to materialize, but I am working with state leadership to possibly get a 4 hour presentation about AuxComm for us. This will not give any certificate or credentials, but will provide some insight regarding what AuxComm is, the impact of the Act, and how it affects the individual ARES member. I expect that more info will begin to flow as the August implementation date gets closer.

Thanks for all your hard work on the weather nets, Field Day, our public service events, as well as on your personal training and preparedness.

John Bloodgood, KD0SFY  
Emergency Coordinator & Public  
Information Officer Region 2  
District 2, Colorado ARES (Pikes  
Peak ARES)  
[www.facebook.com/  
PikesPeakARES](http://www.facebook.com/PikesPeakARES)

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## PPRAA Field Day success

All,

Well, another Field Day has come and gone. We scored big and it's recorded correctly to send in this time.

The bands cooperated pretty well.

The food was excellent! The new ramp got a pretty good workout and good reviews. The remote station was moved out to the site and

is on line and being used.

To those who attended, thank you very much. To those who couldn't make it, we hope to see you there next year.

Lots of great messages went out on Facebook and Twitter covering both Field Day and the Pikes Peak International Hill Climb. If you didn't follow any of it on social media, you missed some cool stuff.

I'd like to thank N4HYF, Raleigh, and Ed, KC0TBE for all the hard work and effort they put into making it a wonderful event. Also, Jim, K3ILC and Gary for getting us so many points on CW.

MISSION ACCOMPLISHED!!!!  
Jim  
KD0KQL



## VE Testing & Education—Colorado Springs (PPRAA)

Pikes Peak Radio Amateur Association (PPRAA)

### When:

Feb, Apr, Jun, Aug, Oct, Dec  
2nd Saturday at 9 AM

### Location:

C21 Library  
1175 Chapel Hills Dr,  
Colorado Springs, CO  
80920

Directions available at:

[ppraa.org/ve-testing](http://ppraa.org/ve-testing)

or contact:

Dennis Major

VE@PPRAA.org

Mike Anderson, WV7T does personal and small group training for all license classes.

Mike also does Morse code training.

Mike can be reached at:

719-229-8610

[wv7t@aol.com](mailto:wv7t@aol.com)



## VE Testing Woodland Park (MARC)

MOUNTAIN AMATEUR RADIO CLUB (MARC)

### When:

Jan, Mar, May, Jul, Sep, Nov  
1st Saturday at 10 AM

Location:

Woodland Park  
Woodland Park Library-  
Community Meeting RM  
218 East Midland Avenue

Directions:

<http://www.nx0g.org/ve.html>

or contact

Wes Wilson (KØHBZ)

[k0hbz@arrl.net](mailto:k0hbz@arrl.net)

Call (719) 687-8758



## Applicants will need the following items:

1. A valid PHOTO ID, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).
2. Your FRN or SOCIAL SECURITY NUMBER (now required – this includes children).
3. Your CURRENT ORIGINAL amateur radio license (if any) and a PHOTOCOPY for the VE Team to keep.
4. The CURRENT ORIGINAL CSCEs you have and a PHOTOCOPY for the VE Team to keep.
5. Cash, Check or Money Order for \$15 (standard ARRL VE Fee). Checks and money orders should be made out to ARRL. This covers all exams you wish to take at this VE session.

Teams, is to not allow same day retests on failed exams.

### PPRAA – Colorado Springs testing only:

Anyone passing their Technician Class examination at a PPRAA test session will receive a free year's membership to the Pikes Peak Radio Amateur Association

NOTE: PPRAA and MARC VE Team policy, as with many VE





Pikes Peak Radio Amateur Association, Inc.



# PPRAA HAM RADIO MEGAFEST



Saturday, July 9<sup>th</sup>, 2016



8 AM to 1 PM Lewis-Palmer High School  
1300 Higby Rd., Monument, CO 80132; East of I-25, Exit 158 or 161  
Vendor Setup at 6 AM — Raffle Ticket Sales Open at 7:30 AM  
Talk In: 146.970 MHz (-) 100 Hz Tone



## Great Raffle Prizes!

One Raffle Ticket Included with Admission  
Additional Tickets: \$1 Each, 6 for \$5, 15 for \$10, 40 for \$20

Drawing at Noon, July 9<sup>th</sup>, 2016.  
Raffle prize winners need not be present to win.

### Yaesu FT-991 HF Base radio

with programming software from RT Systems

### ICOM ID-51A DSTAR HT

donated by CMRG  
with programming software from RT Systems

### Icom IC2730A mobile

with programming software from RT Systems

### Rig Expert AA54 antenna analyzer

### MFJ 993 BRT remote antenna tuner

### Alpha S9v43 fiberglass vertical antenna

### Yaesu FT-60R 2meter/70cm HT

with programming software from RT Systems

### Diamond X50A 2m/70cm 6' antenna

Pikes Peak Radio Amateur Association, Inc.  
PO Box 16521, Colorado Springs, CO 80935  
Raffle License # 2016-10609

## Scheduled Activities:

- License Testing at 10 AM
- Hourly Door Prizes
- Door prize winners must be present to win

## Many thanks to our sponsors:

*Cheyenne Mountain Repeater Group*

*Ham Radio Outlet*

*RT Systems*

*Rocky Mountain Ham Radio*

## Contact info:

[Megafest@ppraa.org](mailto:Megafest@ppraa.org)  
<http://ppraa.org/megafest>

## A few pictures from Field Day



Virgil—N0XRS trying out the new ramp.

As part of Field Day setup, we built a ramp . This ramp will come in handy for equipment movement and gaining access



Doug—N7LEM working the grill



Raleigh—N4HYF, PPRAA club president stayed in the trailer all night. Catching an impromptu and well deserved cat-nap Sunday morning.



Mike—WV7T working digital modes



Go box / Station designed and built by Kevin—K0BBA



Station setup—equipment overview session

(Kevin K0BBA, Rich AD0NP , Jim K0ILC, Raleigh N4HYF)



# Colorado 14er Event

## Celebrating 25 Years!!!

August 6 & 7, 2016  
Saturday and Sunday

[www.ham14er.org](http://www.ham14er.org)

Amateur Radio operators from around Colorado will be climbing many of **Colorado's 14,000-foot mountains** and **Summits On The Air (SOTA)** peaks to set up amateur radio stations in an effort to communicate with other radio amateurs across the state and around the world. Join in on the fun during the **25<sup>th</sup> annual event** and see how many of the mountaintop stations you can contact. This year the event is expanded to include the entire weekend. However, many mountaintop activators will hit the trail early with the goal of being off the summits by noon due to lightning safety concerns. See the very cool **25 Year Anniversary t-shirts** available at <http://www.cafepress.com/wg0at>

Now including **Summits On the Air (SOTA)**, which adds over 1700 potential summits! If you aren't up to climbing a 14er, there are many other summits to choose from (with a wide range of difficulty). See the W0C SOTA web page at [w0c-sota.org](http://w0c-sota.org)

Radio operators who plan to activate a summit should post their intent on the ham14er Yahoo Group. To subscribe to the "ham14er" email list, visit the Yahoo groups site at <http://groups.yahoo.com/group/ham14er/>. Also, be sure to check out the event information at <http://www.ham14er.org>. It is also a great idea to post an ALERT on the SOTAwatch.org website.

### Frequencies used during the event

Activity can occur on any amateur band including HF and VHF. The 2m fm band plan uses a "primary frequency and move up" approach. The 2m fm primary frequency is 147.42 MHz. At the beginning of the event, operators should try calling on 147.42 MHz. As activity increases on that frequency, move on up the band using the 30 kHz steps. *Don't just hang out on 147.42 MHz...move up!* The next standard simplex frequency up from 147.42 MHz is 147.45 MHz, followed by 147.48 and 147.51 MHz.

Frequency (MHz)	Comments	Frequency (MHz)	Comments
147.42	Primary 2m FM Frequency, then up in 30 kHz steps	7.032	40m CW Frequency
147.45	Alternate 2m FM frequency	7.185	40m SSB Frequency
147.48	Alternate 2m FM frequency	10.110	30m CW Frequency
147.51	Alternate 2m FM frequency	14.060	20m CW Frequency
446.000	Primary 70 cm FM frequency	14.345	20m SSB Frequency
446.025	Alternate 70 cm FM frequency	18.092	17m CW Frequency
144.200	2m SSB calling frequency	18.158	17m SSB Frequency
50.125	6m SSB calling frequency	21.060	15m CW Frequency
		21.330	15m SSB Frequency
Other Bands/ Modes	Standard calling frequencies and/or band plans apply.</TBODY>	28.060	10m CW Frequency
		28.350	10m SSB Frequency

**Warning:** Climbing mountains is inherently a **dangerous activity**.

Do not attempt this without proper training, equipment and preparation.

Sponsored by The Colorado 14er Event Task Force

**PIKES PEAK RADIO  
AMATEUR  
ASSOCIATION**

Send membership application to:

Pikes Peak Radio Amateur PO  
Box 16521  
Colorado Springs, CO  
80935-6521

**General Questions:**  
ppraa@ppraa.org

**ØBeat:**  
zerobeat@ppraa.org



**ppraa.org**

**Get Radio Active, get on the air!**

## Membership Application:

**Date:** \_\_\_\_ / \_\_\_\_ / \_\_\_\_ **New Membership: Yes / No**

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City/State/Zip:** \_\_\_\_\_

**Call:** \_\_\_\_\_ **Class:** \_\_\_\_ **Phone # (\_\_\_\_)** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Are you a ARRL member: Yes / No**

**Additional Family Members:**

**Name1:** \_\_\_\_\_ **Call:** \_\_\_\_\_ **Class:** \_\_\_\_ **ARRL Member: Yes / No**

**Name2:** \_\_\_\_\_ **Call:** \_\_\_\_\_ **Class:** \_\_\_\_ **ARRL Member: Yes / No**

**Name3:** \_\_\_\_\_ **Call:** \_\_\_\_\_ **Class:** \_\_\_\_ **ARRL Member: Yes / No**

\_\_\_\_ \$15.00 Full Member

\_\_\_\_ \$10.00 Full Member over 65

\_\_\_\_ \$18.00 Family Membership

\_\_\_\_ \$12.00 Family Membership over 65

\$\_\_\_\_ **Membership Amount**

\$\_\_\_\_ **Scholarship Fund Donation**

\$\_\_\_\_ **PPRAA General Fund Donation**

\$\_\_\_\_ **Total**

## 2015 Scholarship Fund

This last year the donations to PPRAA Scholarship Fund have been slipping.

The scholarship is for a hard science or math related field of study. Those fields of study are, or are similar to, Physics, Chemistry, Math, Electrical Engineering, Bio Engineering, etc.

There are many ways to make your tax deductible donation to this fund. Contributions may be made via:

⇒ [PPRAA website \(http://ppraa.org\)](http://ppraa.org)

⇒ Part of your membership renewal,

⇒ Club meetings and event.

⇒ Directly to the fund at:  
FAR Scholarship Committee  
P.O. Box 911  
Columbia, MD 21044

**Make checks to:  
PPRAA Scholarship**

## Ø- Beat Banner

This photograph of Pikes Peak from Fountain, CO was taken by Pam W0PRS, May 1st 2016.

The theme of the banner is Pikes Peak Region which include PPRAA activities.

If you would like to submit pictures for the Ø-Beat banner, please send them to:  
[zerobeat@ppraa.org](mailto:zerobeat@ppraa.org)

Please Include "[Ø-beat]" as part of the subject line.